

AD-A146 419

2



# AIR COMMAND AND STAFF COLLEGE

## STUDENT REPORT

THE BATTLE OF CHATTANOOGA

Major Paul L. Brown ASC-84-0325

*"insights into tomorrow"*

DTIC  
ELECTE  
OCT 9 1984  
B

DTIC FILE COPY

### DISTRIBUTION STATEMENT A

Approved for public release  
Distribution Unlimited

84 10 02 036

## DISCLAIMER

The views and conclusions expressed in this document are those of the author. They are not intended and should not be thought to represent official ideas, attitudes, or policies of any agency of the United States Government. The author has not had special access to official information or ideas and has employed only open-source material available to any writer on this subject.

This document is the property of the United States Government. It is available for distribution to the general public. A loan copy of the document may be obtained from the Air University Interlibrary Loan Service (AUL/LDEX, Maxwell AFB, Alabama, 36112) or the Defense Technical Information Center. Request must include the author's name and complete title of the study.

This document may be reproduced for use in other research reports or educational pursuits contingent upon the following stipulations:

-- Reproduction rights do not extend to any copyrighted material that may be contained in the research report.

-- All reproduced copies must contain the following credit line: "Reprinted by permission of the Air Command and Staff College."

-- All reproduced copies must contain the name(s) of the report's author(s).

-- If format modification is necessary to better serve the user's needs, adjustments may be made to this report--this authorization does not extend to copyrighted information or material. The following statement must accompany the modified document: "Adapted from Air Command and Staff Research Report \_\_\_\_\_ (number) \_\_\_\_\_ (title) by \_\_\_\_\_ (author) \_\_\_\_\_."

-- This notice must be included with any reproduced or adapted portions of this document.



**REPORT NUMBER** 84-0325  
**TITLE** THE BATTLE OF CHATTANOOGA

**AUTHOR(S)** MAJOR PAUL L. BROWN, USAF

**FACULTY ADVISOR** MAJOR ROBERT L. BELL, ACSC/EDX

**SPONSOR** MAJOR JOHN W. DOROUGH, ACSC/EDCJ

Submitted to the faculty in partial fulfillment of  
requirements for graduation.

AIR COMMAND AND STAFF COLLEGE  
AIR UNIVERSITY  
MAXWELL AFB, AL 36112

**DISTRIBUTION STATEMENT A**  
Approved for public release;  
Distribution Unlimited

**DTIC**  
**ELECTE**  
OCT 9 1984  
**B**

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER 84-0325	2. GOVT ACCESSION NO. ADA146419	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) THE BATTLE OF CHATTANOOGA		5. TYPE OF REPORT & PERIOD COVERED
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Paul L. Brown, Major, USAF, [REDACTED]		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS ACSC/EDCC, MAXWELL AFB AL 36112		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS ACSC/EDCC, MAXWELL AFB AL 36112		12. REPORT DATE MARCH 1984
		13. NUMBER OF PAGES 64
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report) UNCLASSIFIED
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)  STATEMENT "A" Approved for public release; Distribution is unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)  This paper is		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) A three section study on the Civil War Battle of Chattanooga, fought from 23 September to 25 November 1863. The first section describes both Union and Confederate armies actions during this two months period. The second section analyzes these actions according to the principles of war described in the new (1984 draft) AFM 1-1. Section 3 consists of questions and responses in a guided discussion format. The appendix contains quick reference analysis charts and a principles of war outline version of the draft AFM 1-1 United States Air Force Basic Doctrine.		

DD FORM 1 JAN 73 1473

EDITION OF 1 NOV 65 IS OBSOLETE

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

## ABOUT THE AUTHOR

Major Brown received his commission in September, 1970 upon graduation from Officer's Training School. Prior to attending ACSC, his assignments have included duties as a Communication-Electronic Specialist in the 507 Combat Control Group, Shaw AFB, South Carolina; Communications-Electronic Staff Officer at Headquarters, Air Force Communications Command, Richards-Gebaur AFB, Missouri; Commander of the 2119 Communications Squadron, RAF Uxbridge, United Kingdom; and Logistics Career Broadening Officer at McClellan AFB, California. He received a Bachelor of Business Administration in Quantitative Analysis from the University of Massachusetts (1970), a Master in Business Administration from the University of Missouri (1975), and will complete a Master in Political Science from Auburn University in May, 1984.



Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

# TABLE OF CONTENTS

List of Illustrations -----	iv
INTRODUCTION -----	1
SECTION 1 - DESCRIPTION OF THE BATTLE -----	3
Phase 1 -----	3
Phase 2 -----	9
Phase 3 -----	14
SECTION 2 - ANALYSIS OF THE BATTLE -----	23
Phase 1 -----	23
Phase 2 -----	30
Phase 3 -----	36
SECTION 3 - DISCUSSION QUESTIONS -----	41
Question 1 - National Objectives -----	41
Question 2 - Logistics -----	42
Question 3 - Unity of Command -----	43
Question 4 - Violated Principles of War -	44
BIBLIOGRAPHY -----	47
APPENDIX -----	49
Phase Analysis Charts Instructions -----	50
Phase 1 Analysis Chart -----	51
Phase 2 Analysis Charts -----	52
Phase 3 Analysis Charts -----	54
Principles of War Outline -----	56

---

## LIST OF ILLUSTRATIONS

---

### FIGURES

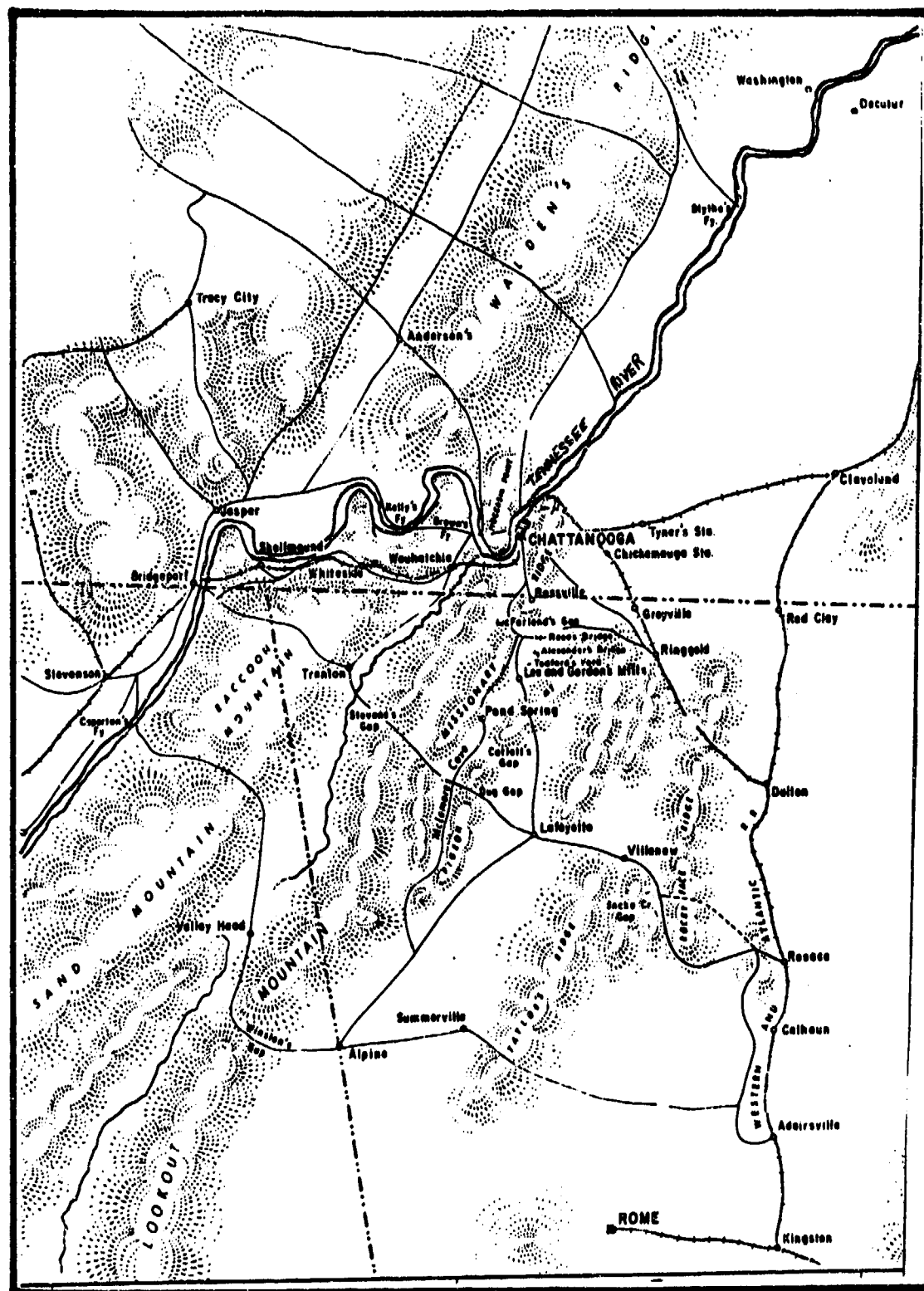
FIGURE 1 - Area Map -----	2
FIGURE 2 - Supply Line & Wheeler's Raid ----	5
FIGURE 3 - Raccoon Mtn. & Vicinity -----	10
FIGURE 4 - Battle of Lookout Mtn. -----	17
FIGURE 5 - Dawn, 25 November -----	19
FIGURE 6 - 1530 Hours, 25 November -----	21
FIGURE 7 - Southern Railroads -----	24

## INTRODUCTION

The Battle for Chattanooga started with the withdrawal of the defeated Union army from the Chickamauga battlefield during the evening of September 21, 1863. It ended with a major Union victory at Chattanooga over two months later on November 25th. During this period the battle went through three successive phases. The first phase (23 September to 23 October) involved the siege of Union forces at Chattanooga. The second phase (23 October to 22 November) involved the breaking of the siege. The third phase (23 - 25 November) involved both the final three days of fighting which ended this battle and the events surrounding this fight. Section one describes the events of these three phases chronologically. Section two analyses these events using the new draft copy of AFM 1-1, concentrating primarily on two of the several principles of war defined therein; logistics and unity of command. Finally, section three consists of discussion questions in a guided discussion format.

The appendix includes analysis charts with instructions. They provide a quick indication of each principle of war's impact on that phase of the battle. Section 2's analysis will be more easily understood if these charts are reviewed first. An outline of the principles of war is also provided for quick reference.





AREA MAP

FIGURE 1

## SECTION 1

### PHASE 1

The first phase of this battle started with the retreat of the badly mauled Union army from the Chickamauga battlefield on 21 September 1863. The Confederate commander, General Bragg, failed to order a hot pursuit of the dispersed Union Army of the Cumberland as it straggled back to the strategic city of Chattanooga, Tennessee. By delaying the pursuit order until 23 September, General Bragg set into motion a sequence of events which was to lead to the defeat of his own Army of Tennessee.

Bragg's failure to turn the Union army's tactical defeat at Chickamauga into total destruction eventually led to three significant results. First, the Union army was allowed to escape and rebuild itself. Second, Bragg experienced considerable dissension and open criticism from his subordinate commanders leading to serious problems of unity of command. Finally, the successful withdrawal of the Union army into the strategic transportation hub of Chattanooga would result in removing most of the tactical options available to the Confederates.

Each nation's grand strategy had an impact on their army's objectives in the upcoming two months struggle to control the transportation gateway into the heart of the Confederacy. The Confederacy's national objective was independence. Consequently, Southern military strategy was defensive in nature. By contrast, the Northern national objective was to preserve the constitutional Union. This resulted in the Union's offensive military strategy designed to return the breakaway Southern states back into the Union. The battlefield tactics each army

employed reflects this defensive/offensive character.

Bragg sought to force the Union army out of Chattanooga and back north into Union territory. But Bragg's army had also suffered significant casualties during the fierce two days of fighting at Chickamauga. Additionally, supplies were low and Confederate transportation lines were in poor condition. Therefore, Bragg decided to place the Union army under siege at Chattanooga. As a first step Confederate General Wheeler's cavalry occupied Lookout Mountain (15:377). This succeeded in driving a wedge between the Union army and their supply depot at Bridgeport to the west of Chattanooga. Lookout Mountain dominated the railroad, road, and Tennessee river which connected these two cities. Union supplies had to be brought in over a back route from the north. This sixty miles route crossed a rugged mountain range via muddy back roads which were long, dangerous, extremely primitive, and totally inadequate to support the heavy traffic needed to sustain the beaten Union army. As a result, the Union army faced the prospect of being starved into surrender or retreat. As the Union cut its rations, first to half and then to one quarter, the Confederate strategy appeared to be working (16:8).

General Rosecrans, the Union army commander, ordered his Chattanooga positions strongly fortified. This the army did by using every scrap of material at hand, including tearing down most of the wooden buildings in town to construct defensive works (16:6). The army soon became so strongly entrenched that the Confederates considered a frontal attack to be suicidal (15:381-2). The only other points to attack required a river

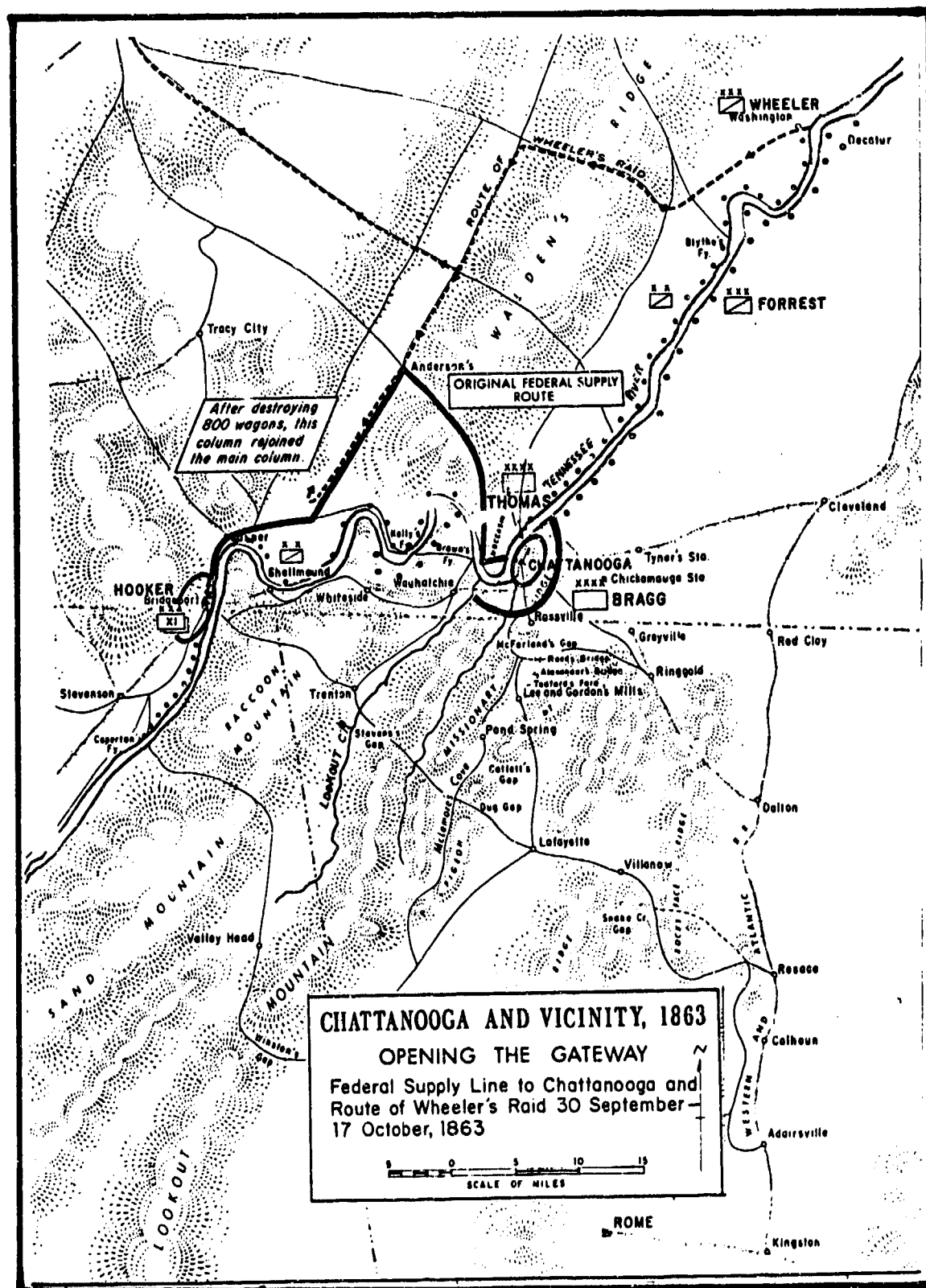


FIGURE 2

crossing. Additionally, Bragg's army would need more supplies and dependable logistic transportation routes. These the Confederates did not yet have. Hence, Bragg fully depended upon his siege tactics to defeat the Union army. This included more than passive defense action.

Bragg took offensive action to tighten his stranglehold on Chattanooga. He sent Wheeler's two cavalry divisions on a raid around the north end of the Union army. Wheeler operated against the single transportation line trickling supplies into Chattanooga. The cavalry destroyed between 300 and 800 wagons, burned large quantities of supplies, and killed or captured hundreds of horses and mules (7:281; 16:8). Successful Union cavalry action subsequently turned back this raid, the first of only two offensive Confederate operations Bragg employed during this two month struggle. Meanwhile, the Union army was undergoing changes which would have far reaching consequences.

Changes in the Union army's command structure and composition were underway. Union Secretary of War Edwin M. Stanton gave General Grant Command of all theater forces on 17 October. Grant then replaced General Rosecrans with his loyal subordinate corps commander, General Thomas. Thomas had saved the army at Chickamauga by holding its center firm against massive attacks from Confederate General Longstreet after the Union right had collapsed. Admiring Union troops gave Thomas the nickname "Rock of Chickamauga" for this action (7:278). After this change in command, Grant proceeded to Chattanooga.

Other Union reinforcements also proceeded toward Chattanooga. General Hooker brought the Army of the Potomac's

Eleventh and Twelfth Corps; 20,000 men with their cannon, munitions, and other equipment. They made the railroad trip from the east coast to the Union supply depot at Bridgeport in a remarkably short eleven days. This demonstrated the benefit logistical lines of communication could have in supporting a field army (6:196). However, lines of communication must extend all the way to the field army to be useful; the Union's lines did not. Opening up the supply route between Bridgeport, where Hooker arrived on 2 October, and the besieged Thomas at Chattanooga, was the next critical problem facing General Grant.

Grant headed for Chattanooga, meeting the outbound Rosecrans along the way. Rosecrans briefed Grant on the critical supply situation and proposed an excellent supply relief plan. The plan to open up a more direct supply route was developed by Rosecrans' engineering officer, General W. F. Smith. Smith had attended the Military Academy with Grant and had his confidence (6:202). Grant's quartermaster duties during the Mexican war probably helped him recognize the seriousness of this problem and the benefits of adopting the supply relief plan. Grant experienced the supply route first hand by traveling over it to Chattanooga on 23 October, a month after the siege had begun. What he saw there reinforced his desire to address logistics, now his number one priority item.

Thomas' besieged army was starving. Food rations were at a minimum. Even the grain meant for the few surviving horses and pack mules had to be guarded or the soldiers would steal it. Early October rain, swollen streams and deep mud had taken its toll on army transportation. But Thomas wasn't the only one

having serious problems. The Confederate generals were arguing over how to solve Thomas' problems for him.

General Longstreet disagreed with his commander, General Bragg, over the siege strategy. "We were trying to starve the enemy out by investing him on the only side from which he could not have gathered supplies" (12:167), Longstreet wrote to Confederate Secretary of War Seddon on 26 September, and even suggested an alternate military strategy (15:377). Longstreet's disagreement with Bragg went much deeper than the issue of siege tactics. Bragg's military conduct of the summer campaign and failure to follow up the Confederate victory at Chickamauga brought bitter recriminations from subordinate commanders. This latest disagreement over military operations heightened ill feelings to the point that it became Bragg's most critical problem during this phase of the battle. Other subordinate commanders were also writing letters.

Bragg's corps and division commanders; such as Generals Breckinridge, Cleburne, Cheatham, Hill, Buckner, Hindman, and Polk, were unanimous in their opinion that Bragg did not possess the confidence of the army sufficiently to continue commanding it. General Breckinridge's troops were so upset they urged him to challenge Bragg to single-handed combat (15:275)! General Polk wrote to Confederate President Jefferson Davis, on 27 September, stating Bragg's unfitness for command and requesting General Lee replace him. When Bragg suspended Polk and Hindman from command two days later, President Davis overrode the action. Polk again wrote Davis on 6 October complaining about Bragg's unfitness. On 9 October, Davis arrived at Bragg's headquarters.

Davis talked to Bragg and his subordinate commanders during the following four days. In the end, Bragg was left in command, several subordinate commanders replaced, and some consideration given to Longstreet's strategy of shifting Confederate forces northeast towards Knoxville. This shift would counter a Union threat in that area. But the Union army was about to offer another threat. Grant's 23 October arrival in Chattanooga marked the start of the first Union offensive operation of the battle.

#### PHASE 2

Grant implemented the supply relief plan after consulting with Thomas. The plan called for opening up a more direct route between the Union depot at Bridgeport and Chattanooga. The southwest-northeast running Tennessee River forms the upper border of this proposed route. Raccoon Mountain parallels the lower side of the river. The next parallel layer below this mountain range is Lookout Valley. One more mountain range, Lookout Mountain, forms the bottom parallel layer. The river bends down just before passing Chattanooga. This causes both mountain ranges and Lookout Valley to run straight into the river. The proposed supply route would start down river at Bridgeport, go through a pass in Raccoon Mountain, proceed straight up Lookout Valley past the town of Wauhatchie, and cross the river at Brown's Ferry 6 miles below Chattanooga. This shorter land route would open up most of the river for steamboat traffic. Supply wagons and boats would then be outside the range of Confederate cannon on Lookout Mountain. But first, Confederate units would have to be cleared away from Raccoon Mountain and out of Lookout Valley.



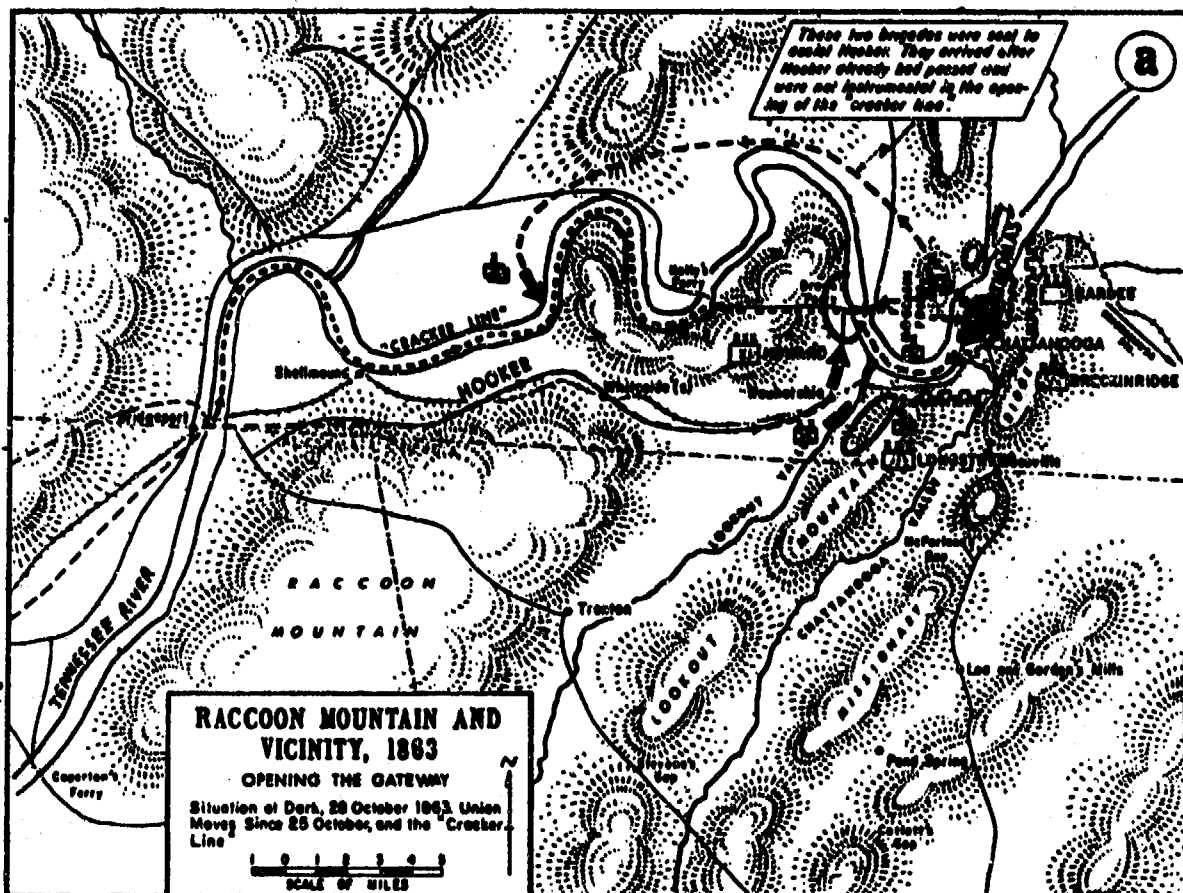


FIGURE 3

Grant required surprise to capture Lookout Valley and Brown's Ferry. He had to make the capture before Bragg could block the route by massing Longstreet's forces in the valley. The Union plan involved launching a two prong attack, one at either end of Lookout Valley. The first objective was to secure a beachhead at Brown's Ferry, near Chattanooga. Then, Hooker would come up from the depot at Bridgeport. He would go through a pass in Paccoon Mountain, advance up the valley from the opposite end, finally massing at the Brown's Ferry beachhead.

Thomas launched General Smith's forces by river from Chattanooga on sixty homemade pontoon boats 3 A.M. on 27 October. Darkness and a light mist hid this force as it floated nine miles down river undetected. Other concealed forces followed overland. Brown's Ferry was captured at 5 A.M. by the amphibious force and held until Hooker's forces arrived on 28 October (6: 203).

Hooker started his advance from Bridgeport on 26 October practically unopposed. Longstreet's observers sent word of Hooker's movements toward Lookout Valley during the 27th, but Bragg apparently did not take this information seriously. However, further reports prompted Bragg to go to Lookout Mountain on the morning of 28 October to discuss the matter with Longstreet. As Bragg started to rebuke Longstreet for sending false alarms, another observer came up with further news of advancing Union troops now in Lookout Valley. Still disbelieving, Bragg rode with Longstreet and the observer to a vantage point overlooking the valley. Only then did Bragg believe the reports as he watched Hooker's army advance up Lookout Valley through Wauhatchie to Brown's Ferry. Too late to

stop the Union advance, Bragg instructed Longstreet to launch an attack that night (11: 293).

The Confederate night attack on Hooker's forces at Wauhatchie failed. Several reasons are advanced. First, night attacks usually failed due to the fog of war. Second, in Bragg's 30 October report to President Davis, he attributes the failure to Longstreet not attacking earlier. When he finally attacked, it was with too small a force (15:389). A third account accuses Bragg of sending Longstreet only one of two divisions he had promised. Longstreet deployed his forces thinking the other division was on the way. It never arrived and the attack failed for insufficient force (11: 293). A fourth reason deals with unintended tactics. In this account Union mules panicked after their teamsters deserted them. The frightened mules stampeded straight into the Confederate line dispersing it (8: 319-320). An intriguing fifth account gives credit to Union cryptographers who had broken the Confederate signal code. As a result, Longstreet's torch signals, from atop Lookout Mountain to his troops in the valley below, were intercepted. The Union army knew what the Confederates were going to do at each stage of the night fight and took countermeasures accordingly (16:21-25). Whatever the reasons, the outcome was a greater disaster for Bragg's Army than their relatively light casualties (about 400) would indicate. It changed the entire complexion of the battle by lifting the siege, the fundamental tactic all Confederate actions were predicated upon.

Hooker now had control of Brown's Ferry and the southern side of the Tennessee River. This shorter, more dependable Union

"cracker line" supply route broke the Confederate siege. Within a week the Union army was back up to full food rations; munitions and material flowed into the city. In securing Lookout Valley, the Union suffered 416 casualties (8:320). Grant ordered General Sherman to Chattanooga to participate in the final phase of the battle. Grant felt this battle had to be initiated as soon as possible because of Bragg's potential shift in military strategy resulting from the lifting of the siege (15:390).

Breaking the Confederate siege line forced Bragg to do three things. First, he shifted his military strategy by focusing part of his strength against General Burnside's Union army further northeast at Knoxville. With President Davis' approval, Bragg and Longstreet agreed the latter would move on Burnside. Longstreet departed Bragg's army on 5 November taking about 25% of the army with him (11:295; 15:393; 16:25). Second, the affable General Hardee replaced quarrelsome General Polk on 31 October. Several other wing and corps commanders were also replaced. Most of these officers had been popular with their troops (12:164). Third, Bragg completed an army reorganization by the second week in November. Meanwhile, Longstreet was making slow progress towards Knoxville, but this threat to Union General Burnside was having its impact on Grant.

Grant knew Burnside was getting into a desperate condition regarding supply. Consequently, Grant needed to put pressure on Bragg to prevent the Confederates from sending any further units against Burnside. In addition, Washington was urging Grant to take action for Burnside's relief (8:323). On 7 November Grant ordered Thomas to attack the northern end of Bragg's defense line

along Missionary Ridge. Thomas objected, explaining that the few horses and mules left were still too weak from starvation to move the artillery. Grant withdrew the order and urged Sherman to lead his army to Chattanooga (8:324). Sherman arrived in Bridgeport on 13 November. The stage was now set for the final action against the Confederate Army of Tennessee.

### PHASE 3

Grant's original plan for the final phase of the battle was simple. Sherman's corps would surprise attack the north end of the Confederate's 15 mile long defense line. At the same time, Hooker would attack the south end and Thomas would hit the center. Sherman reconnoitered the north end and erred in determining the type of terrain his corps would be fighting on.

Bragg's army was positioned on defensive terrain on top of Missionary Ridge, a hogback ridge extending from northeast of Chattanooga to several miles southwest of the city. Sherman thought it was just one long ridge and planned to take the north end, then roll up Bragg's army by marching southwest along the top (16:25). What Sherman failed to see was a series of hills at the north end of the ridge. The terrain at the southwest end of Bragg's defensive line presented a different problem to Hooker.

Hooker's plan was to advance across Lookout Mountain. The Confederate fortified mountain was at the north end of a 70 miles long ridge series. East, on the other side of Lookout Mountain, was Chattanooga Valley. Hooker's military objective was to take the mountain, advance across the valley behind it and attack the south end of Missionary Ridge.

Finally, Thomas would advance across Chattanooga Valley and

attack the center of Bragg's army on 600 feet high Missionary Ridge. Grant hoped for coordinated attacks so Bragg could not shift his numerically inferior troops from one end of his line to the other in order to meet the attacks. Bragg's threat towards Burnside and the weather changed this simple Union plan.

Sherman's lead elements reached Brown's Ferry on 20 November. Grant intended to launch the attack on the 22d when Sherman was in place. But first, Grant would have Sherman's troops perform a deception on Bragg. A Union division (Gen. Howard) had been concealed behind hills north of Chattanooga. When Sherman's corps crossed Brown's Ferry, they would move north out of view of the Confederates. Howard's Division would later emerge from behind the hills and move to the city hoping to convince Bragg's army that he was Sherman. This deception was necessary for two reasons. First, Burnside was now under attack and Grant didn't want the Confederates to think Sherman was going north to Burnside's assistance. It might convince Bragg to retire from his positions and move towards Burnside for the kill. Grant wanted Bragg to stay put so he could fight the Confederate army. Second, Sherman needed to get to the northern end of the Confederate line without being seen. This would allow Sherman to make a surprise attack on Missionary Ridge before Bragg could reinforce that end of his line. However, the weather amended Grant's original plan.

Sherman could not get into position on time due to heavy rain on 20 and 21 November. Then, on the 22d, word came to Grant that Bragg was sending more troops north against Burnside. Finally, telegraphic communications with Burnside were cut.

Sherman wouldn't be in position for another day. Grant had to act without him; Bragg had to be kept from leaving (8:329).

Longstreet was at Knoxville and had Burnside almost completely invested (15:395). He sent several requests to Bragg for more troops to complete the action against Burnside. He intended to return to Bragg before Sherman could arrive at Chattanooga (12: 167). Consequently, Bragg dispatched two divisions toward Longstreet on 22 November. These were the troops that Grant heard about. Grant now changed his plan in an effort to determine Bragg's current position.

On the morning of 23 November, Grant initiated the final three days battle by ordering Thomas to make a reconnaissance in force against the center of Bragg's line (6:206). Thomas' Army of the Cumberland lined up for battle. The Confederates, who had an excellent view of the entire center of Thomas' lines, admired what they thought was a review and drill. Then, before the Confederate defensive line across Chattanooga Valley realized what was happening, the Union army charged. Confederate defenses were quickly overrun. The whole operation amounted to a surprise attack in open daylight (12:170). The attack convinced Grant that Bragg was still there in force. The next day's activities would take place at both ends of the Confederate line.

This Union attack and Sherman's appearance on the north end of the line late on the 23d caused Bragg to start strengthening his line opposite Sherman's advance across the Tennessee River. Cleburne's division was called back from his move north to support Longstreet. However, the other division (Buckner's) had already left. By the morning of the 24th Bragg had shifted some

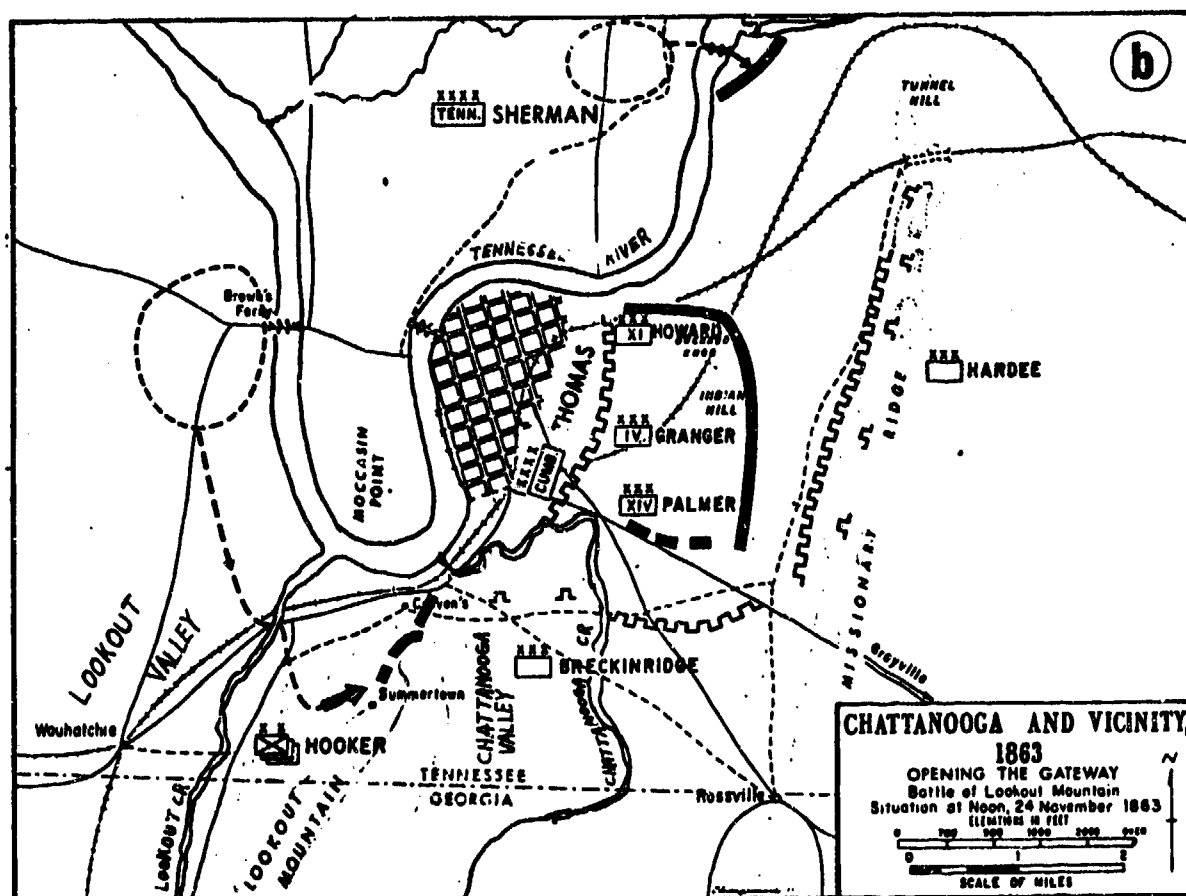


FIGURE 4



units to the north end of his line anticipating the Union's main blow there (12:170). As a result, the southern end at Lookout Mountain was left lightly defended (11: 296). Shifting Confederate forces to the northern end of the line would become a common theme throughout the remainder of the battle.

Hooker started off the 24th's activities by driving across Lookout Creek and up Lookout Mountain. The battle was shrouded in mist and clouds, leaving Grant and Thomas to wonder what was happening. By day's end, Hooker's forces had taken most of the mountain and would finish the job the following morning. Meanwhile, Sherman was having trouble at the opposite end of the Confederate line.

Bragg had read the threat correctly and was massing his forces precisely where Grant intended to make his main attack. It became a race to see who could mass their forces the fastest. Bragg won, mostly because the previous several days heavy rain made Sherman's moves difficult and slow. Then, Sherman discovered that the hill he captured did not comprise the north end of Missionary Ridge (8:334). He prepared for a major engagement the following day. Thomas remained quiet during the 24th as he strengthened his new positions.

On the 25th Sherman resumed his assault on the northern flank. By now the Confederates were strongly entrenched opposite Sherman, thanks to Confederate General Cleburne's good eye for terrain and the outstanding fighting spirit of his brigades (16: 35). The fighting was extremely fierce. Sherman was unable to make much headway and started calling for assistance from Thomas. Grant had planned to have both Hooker and Sherman attack either

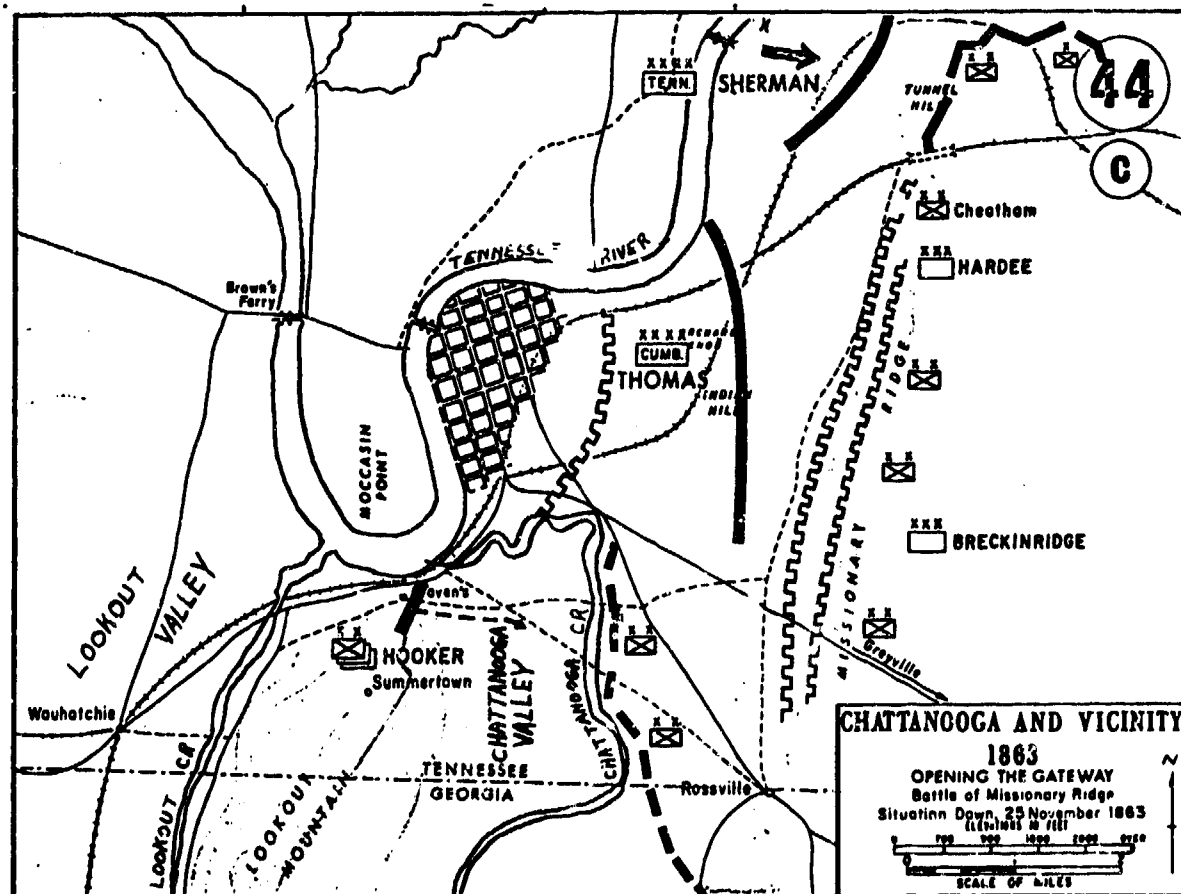


FIGURE 5

ends of Missionary Ridge simultaneously so Bragg's forces could not reinforce each other. Hooker, however, had run into unexpected trouble.

Hooker ran into delays on the 25th after clearing Lookout Mountain and advancing into Chattanooga Valley. Retreating Confederates burned a critical bridge which took Hooker's troops four hours to replace. Meanwhile, Bragg continued to shift more forces from the south and middle of his line to the north to meet Sherman's challenge there. By mid afternoon Sherman was insistent on supporting action from Thomas to help take some of the pressure off the northern end of the line. At 3 P.M. Grant gave Thomas the order to attack the center of Bragg's line at Missionary Ridge.

Bragg had a layered 'defense in depth' in the center of his line. At the narrow crest of Missionary Ridge artillery and troops were positioned. Half way down the steep 600 feet ridge and along the base rifle pits were dug. Grant's intention was to take the rifle pits at the base and discourage any further Confederate forces from shifting northward. Grant still counted on Sherman's attack to win the battle. Consequently, Thomas ordered two divisions to attack the center of the Confederate line. What happened next was unplanned and totally unexpected by both sides.

Wood and Sheridan's divisions attacked the Confederate rifle pits. Artillery, on top of the ridge, pounded the Union divisions with a deadly hail of grape and canister. The fighting was so heavy Sheridan lost 20 % of his division within an hour (6:214). When the Union soldiers reached the base of the ridge,

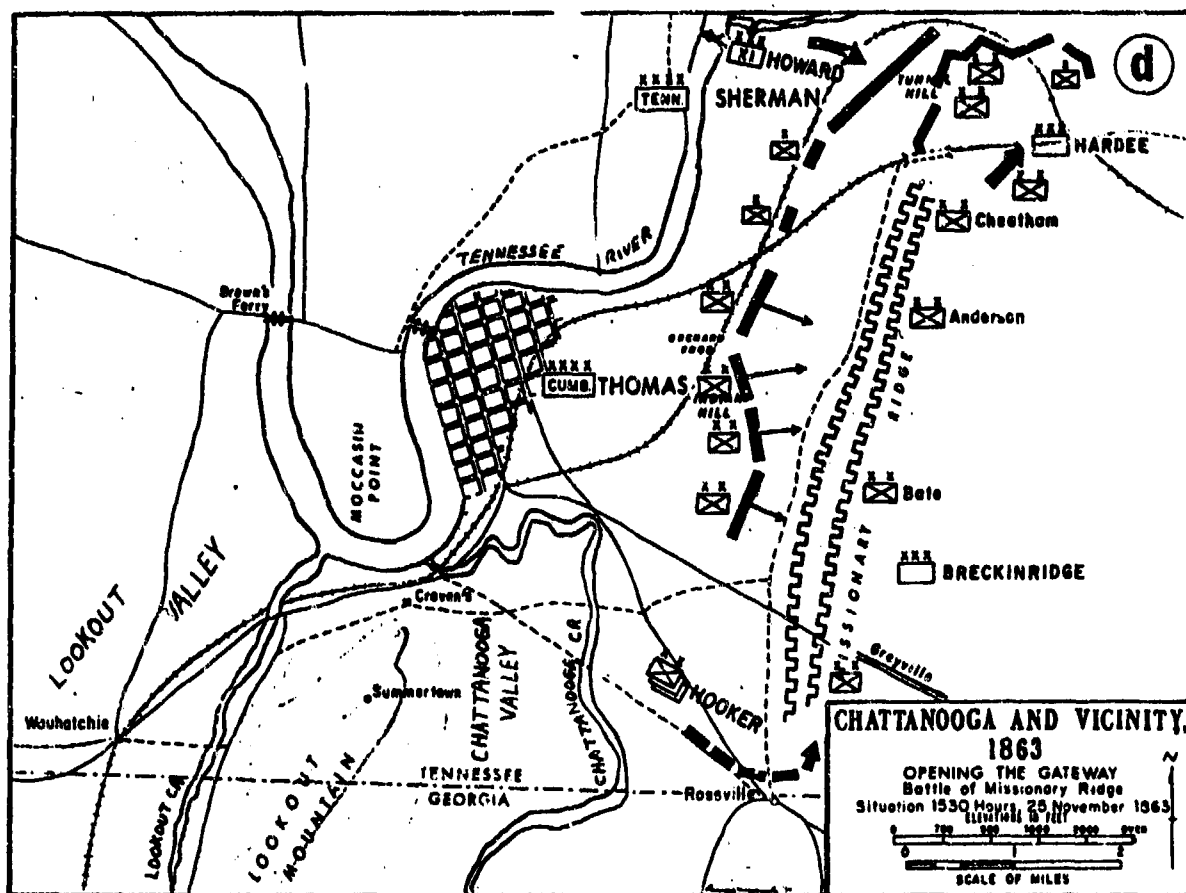


FIGURE 6

there was no protection from the deadly accurate Confederate fire. Their choices were to stay there and be killed, retreat back across the valley under the same deadly fire they just endured, or follow the retreating enemy up the ridge. Without orders, and all at once, the Union soldiers charged out of the enemy rifle pits. Over the top of the ridge went Wood and Sheridan's divisions. Panic seized the Confederates and Bragg's center was lost (12:174).

Hooker finally came up from the south and that portion of the Confederate line also collapsed. Quick action north of Wood and Sheridan's breakthrough by a Confederate division prevented a further roll-up of the Confederate line. That night Bragg retreated from the battlefield ending the battle for Chattanooga.

Some statistics of this final three day battle:

Strength at start of battle:

Union                    60,000

Confederate            45,000

Losses:

Union                    5,824

Confederate            8,684 (including 6,142 prisoners)

Confederate equipment:

artillery                42 pieces

small-arms              7,000                    (6:214)

## SECTION 2

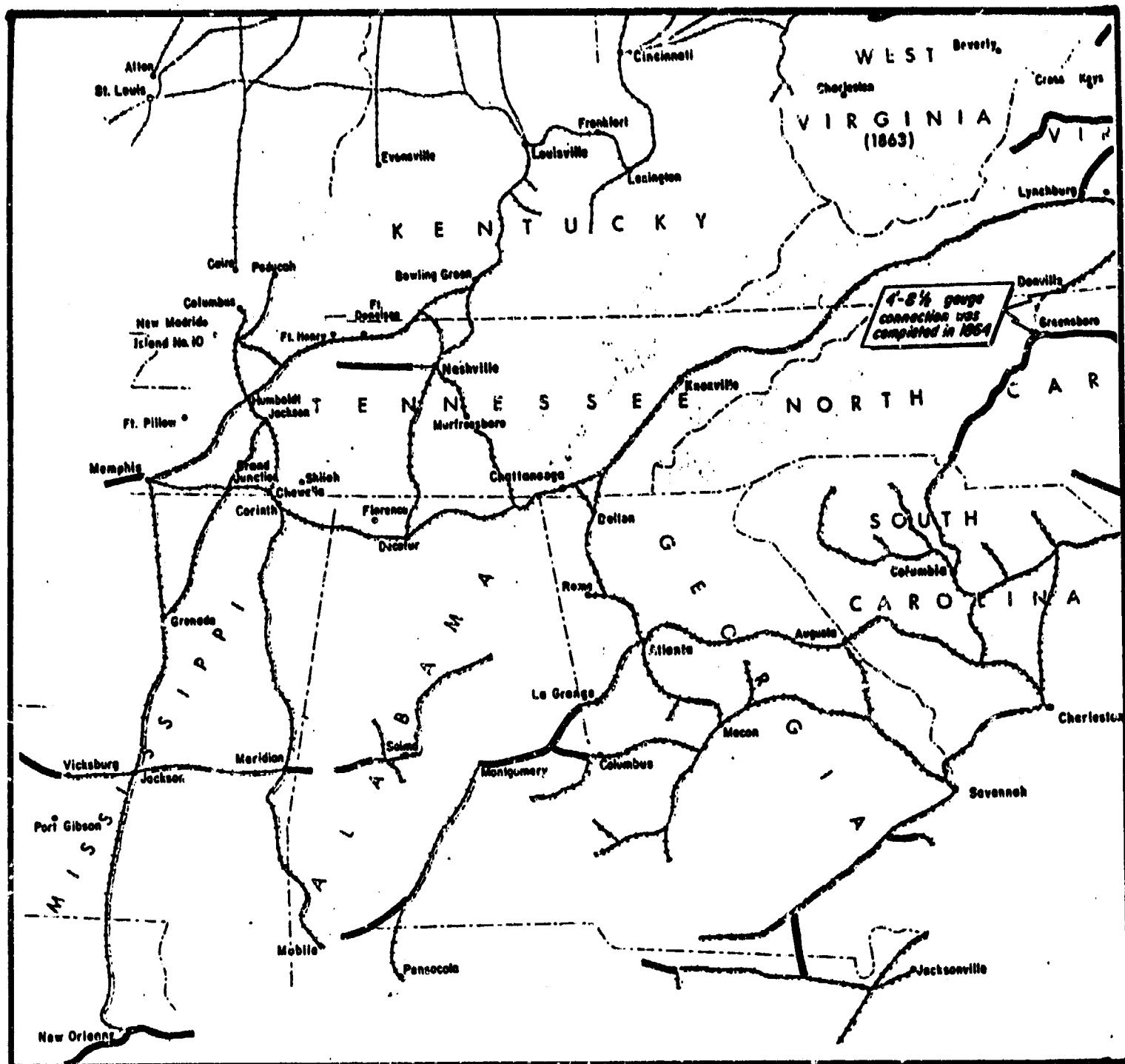
### PHASE 1

Both commanders were primarily concerned with four of the several principles of war: logistics, unity of command, cohesion, and security. Although the other principles had some effect, their impact was relatively insignificant in comparison to these four. Chart 1 gives a quick summary of each of these four principles' degree of impact and how this impact compares with each side.

### LOGISTICS

Logistics was the most critical principle of war for the Union army during this first phase of the battle. If it was not satisfactorily resolved, lack of supplies would lead to their surrender or retreat. The Union had insufficient men, machines, and supplies. General W. F. Smith's supply relief plan, when successfully completed, provided a secure and much more direct line of communications over which all the needed supplies could be brought. Hooker and Sherman's corps brought additional manpower and material (artillery, draft horses, wagons, ammunition, clothing, etc.). Consequently, Generals Grant and Thomas could then turn their attention to other matters.

During this phase of the battle Grant traveled over the supply route and acquired a first hand knowledge of the problems involved. Previous Mexican War service as a quartermaster probably helped him assess the seriousness of the supply problem. His support and implementation of Smith's supply relief plan led to breaking the siege. Finally, the Union strategic railroad lines, interconnecting the Mississippi theater with the east



SOUTHERN RAILROADS

FIGURE 7

coast, permitted the rapid transfer of large numbers of troops and material.

The Confederate army had access to interior railroad lines well protected by their army's deployed positions. Consequently, Union cavalry was not able to raid their lines of communication as the Confederates were able to do. But logistics was still a problem for them for several reasons.

Confederate railroads were not as effective as those of the Union. After the Battle of Chickamauga, Bragg reported that his railroad was clogged with wounded, prisoners, and supplies. The railroads followed a long circular route which was time consuming. They could not handle as much traffic as Union railroads due to limited equipment. The roads from the railroad to his field army were in poor condition and required construction work (15:375).

Lack of roads and bridging material prevented Bragg from attempting a flank attack on the entrenched Union army. Bragg also experienced considerable difficulty finding supplies to ship to his army. He was unable to get sufficient men and material to the right place at the right time to initiate offensive operations against the besieged Union army at Chattanooga. Logistics occupied more than its proper portion of Bragg's time and energy, just as it did with Grant, during this phase. Whoever solved his logistics problems first would be on his way to winning the battle.

#### UNITY OF COMMAND

The Union experienced problems in this area but were able to deal effectively in resolving them. These problems included



ineffective leadership and lack of decision making ability on the part of General Rosecrans. The resolution involved command reorganization and replacement of Rosecrans. Three general officers were relieved of duty after the Union's defeat at the Battle of Chickamauga. The Federal War Department convened a court of inquiry on 29 January 1864, to try Generals Thomas L. Crittenden, Alexander McDowell McCook and James S. Negley. They were cleared by this Board (15:381). Although the actions against these subordinate commanders caused some dissatisfaction among their troops, the prompt and effective handling of this problem by Union authorities prevented any further disharmony in the Army of the Cumberland. (This was in sharp contrast to the Confederate handling of similar problems.) The ineffective leadership problem with the army's commander was resolved even more quickly.

Union Secretary of War, Edwin M. Stanton, met with General Grant on 17 October and completed both organizational and command changes. Grant was given command of the newly created Mississippi Military District. Thomas replaced Rosecrans as commander of the Army of the Cumberland (6:197). Both Grant and Thomas provided the leadership and decisiveness needed to implement the supply relief plan which subsequently lifted the Confederate's siege on the Union army at Chattanooga. These organizational and command changes resolved the Union's problems in this principle of war. Their adversary failed to resolve his similar problems.

As indicated on chart 1, this principle of war represented the Confederate's most serious problem. The Confederates failed

to resolve it either sufficiently or quickly enough. The cumulative affects of this problem eventually resulted in their Army of the Tennessee's defeat. The problems involved inappropriate command authority and responsibility, ineffective leadership, lack of cooperation between Confederate commanders, and questionable strategy and planning. These problems center around the Army of the Tennessee's commander, General Bragg.

For several months prior to the battle for Chattanooga, most of Bragg's subordinate generals felt that Bragg lacked the confidence of the army sufficiently to continue as its commander. In the opinion of these generals, this loss of confidence was resulting in the demoralization of the entire army (15:271). The subsequent discussion on the principle of 'cohesion' further illustrates the degree of the problem. Ineffective leadership and lack of decisiveness were the main complaints. As General Longstreet put it in a letter to Confederate Secretary of War Seddon on 26 September "I am convinced that nothing but the hand of God can save us or help us as long as we have our present commander...It seems that he cannot adopt and adhere to any plan or course, whether of his own or of some one else". General Polk, one of Bragg's corps commanders, was also busy writing complaints concerning his commanding general. On 27 September Polk wrote to President Davis advising of Bragg's unfitness for command and recommending his replacement (15: 377-379). In an attempt to resolve these personnel problems, President Davis visited Bragg's headquarters on 9 October. However, Davis' method of conducting interviews with Bragg's bickering subordinates only seemed to intensify the ill feelings rather

than resolve them. Cooperation among the Confederate commanders continued to be a problem. In addition, Davis' decision to reverse Bragg's removal of Generals Polk and Hindsman from command further undermined Bragg's authority. Longstreet was also proving to have serious problems with Bragg's military strategy.

Longstreet disagreed with his commanding officer over the siege strategy Bragg had adopted. This, coupled with bitter recriminations over the summer campaign and Bragg's failure to follow up the Chickamauga battle with a decisive pursuit, eventually resulted in Longstreet leaving the Chattanooga battlefield. This departure, during phase 2 of the battle, seemed to be an attempt between Bragg and Davis to resolve the problem with Longstreet. Bragg continued to replace other subordinates in an effort to resolve the cooperation problem. His actions eventually proved to be detrimental to his army's ability to determine priorities and deliver decisive blows during phase 3 of this battle.

#### COHESION

Both armies experienced morale problems. The Union had just retreated from a devastating tactical defeat at the Chickamauga Battle. General Rosecrans failed to show inspired leadership spirit to his subordinate commanders and troops. His defeat at Chickamauga was the result of employing unsound military doctrine and poorly communicating a last minute troop movement order.

Likewise, Confederate General Bragg failed to take advantage of the retreating Union army. This resulted in the Union's successful return to Chattanooga. Bragg's subordinate commanders

felt that he had lost the confidence of his troops, a necessary factor for maintaining warfighting spirit. The handling of the subsequent visit to his army by Confederate President Davis caused further loss of cohesion.

Finally, President Davis did not demonstrate a sense of common identity and shared purpose with the several subordinate Confederate commanders when he failed to replace Bragg. President Davis conducted interviews with the disgruntled subordinate commanders in the presence of their commanding officer. Their action resulted in more ill feelings between Bragg and his subordinates. The question of what to do about the disagreements between Bragg and Longstreet was not resolved. This would have a serious impact upon unity of command later.

#### SECURITY

Both the Union and Confederate commanders were able to use security effectively. The Union army constructed very strong fortifications around its forces at Chattanooga. Likewise, the Confederates took advantage of the high ground around the city by entrenching along the top of Missionary Ridge and Lookout Mountain. However, the Confederates were to misjudge the strength of their ridge top fortifications. This would later cause them to lose their security.

The Union also improved upon security by sending additional forces to support the besieged Army of the Cumberland. These forces consisted of two corps under the command of General Hooker. When Hooker reached the Union depot at Bridgeport, his men constructed a steamboat from available resources. It was used in subsequent activities which brought badly needed supplies to

Chattanooga after the siege was lifted. Additionally, General Sherman's forces were also called upon. However, this latter corps did not reach the battlefield until late in phase 2. In the meantime, Confederate forces sought to weaken Union security by tightening the siege.

The Confederates took action to weaken the Union supply system while strengthening their own. They raided the Union line of communications using Wheeler's cavalry. Confederate supply lines were well protected behind their siege fortifications. Also, selection of high ground fortifications gave the Confederates an advantage the Union army did not have, disguise. The Union could not see Confederate activity behind their defensive lines. On the other hand, the Confederates could look down on Union activities in the valley below. Consequently, Union deception during this phase was not very effective. Finally, the civilians living in that area were Southerners who cooperated with the Confederate army by providing intelligence information.

The Union army's failure to occupy and fortify Lookout Mountain resulted in the most serious threat to their security. The Confederates seized this high ground and, thus, drove a wedge between the Union army at Chattanooga and their supply depot at Bridgeport. It was this action which permitted the Confederates to carry out their siege tactics.

#### PHASE 2

Seven principles of war were prominent during this month long phase (23 October to 22 November) of the battle. Each side took actions, or reacted to actions, which changed the impact of

the principles of logistics, unity of command, cohesion, security, offensive, surprise, and maneuver. Chart 2 gives a quick overview of the resultant changes as of the end of the phase. The Union was able to significantly improve its positions through the effective use of these seven principles. Confederate inability to effectively use five of the principles left their army at a distinct disadvantage by the end of this phase.

The Union army focused its efforts on resolving the extremely serious logistics problem. They employed offensive, maneuver, surprise, and security principles to turn around their supply and transportation problems. Orchestrating these principles of war through a solid unity of command structure both dramatically improved the war fighting cohesion of the Union troops and eventually set the stage for the final phase of the battle.

#### LOGISTICS

Grant solved his logistics problems by successfully employing the supply relief plan. Opening a more direct route between the Bridgeport supply depot and his besieged army at Chattanooga accomplished three things. It lifted the siege, permitted sufficient delivery of supplies to sustain the Army of the Cumberland, and offered a shorter route over which sufficient men and equipment could be moved for future actions.

Grant broke the Confederate siege by clearing Lookout Valley of Confederate troops and securing a bridge across the Tennessee River at Brown's Ferry. Both river and road traffic could then move efficiently into Chattanooga. Within a week Union soldiers were back on full rations and were receiving winter clothing.

Sufficient munitions came in to sustain the Union army against any attack the Confederate army could throw at them. Prior to this some units were down to only one day's quantity of ammunition.

The simple, more direct transportation route permitted quick movement of sufficient men and supplies to support future Union offensive actions. Steamboats could now be used along with wagons for transport operations. Grant was now able to turn his attention to engaging the Confederate army. The pontoon bridge at Brown's Ferry permitted him to move Sherman's corps into Chattanooga.

The Confederate army was not able to solve their logistics problems. Bragg now had sufficient transportation routes to his deployed army. However, the general lack of supplies throughout the Confederacy prevented President Davis from sending Bragg the supplies he requested. Consequently, Bragg felt he had insufficient logistics support and forces to successfully attack the Union army.

#### UNITY OF COMMAND

The Union had resolved their command problems through two methods. First, the Mississippi theater was placed under the command of General Grant. Next, Grant replaced Rosecrans with Thomas. These two actions consolidated the authority and responsibility for military operations theater wide. This meant that Grant had the authority to bring Sherman to his assistance. Thus Grant provided the decisive leadership needed to orchestrate the overall efforts of all available Union forces, including Hooker's two corps.

Thomas was given the authority to execute the coordinated supply relief plan through exploiting the Confederate weaknesses of troop positions and lack of sufficient forces. The battlefield tactics were integrated into the overall military strategy of bringing superior forces to bear on Bragg's army to inflict a battlefield defeat. Union priorities were set (logistics receiving the highest priority). Sufficient forces were allocated to break the Confederate siege line. Finally, Grant controlled the movements of Thomas' and Hooker's forces to bring about a successfully coordinated two prong attack through Lookout Valley and at Brown's Ferry.

This principle of war continued to be Bragg's most serious problem. Attempts to resolve his command problems were unsuccessful. His actions created other problems which were to seriously diminish his resources during the final phase of this battle.

Bragg lacked the authority to replace subordinate commanders due to the nature of the Confederacy's military organizational structure. Generals, such as Longstreet, who were appointed to their position by their respective state governors could not be ordered replaced by a general from a different state. Unlike Grant, Bragg lacked the central authority of a theater commander. This decreased cooperation and coordination between Bragg and several of his subordinate commanders who disagreed with his battlefield tactics. Eventually, Bragg was able to have most of these disagreeable commanders replaced, but with serious injury to troop cohesion.

Bragg's problems with Longstreet led to the Army of the



Tennessee's loss of sufficient striking power needed to deliver a decisive blow against the Union army. After the siege was broken, Bragg agreed to send Longstreet, along with about 25 % of the Confederate forces, to Knoxville. This got Longstreet out of Bragg's way. Unfortunately, it also took away the strength Bragg would need with which to withstand a determined Union attack. Allocating resources away weakened the Confederate army precisely when the Union army was significantly increasing their forces. Loss of command control prevented Bragg from orchestrating the actions of enough forces to prevent Grant from exploiting the weakened Confederate positions. It also contributed to the defeat of his army in an unexpected way.

Sending Longstreet towards Knoxville, evoked an unexpected series of actions from the Union army. The Union commander was concerned that Bragg would join Longstreet against General Burnside's beleaguered Union army at Knoxville. The departure of Longstreet convinced Grant that Bragg would move his army away before it could be engaged in a decisive battle. Consequently, Grant launched the final three day battle, described in phase 3, to hold Bragg in place and defeat him.

#### COHESION

Grant was able to establish and maintain Union fighting spirit and capability by three actions. First, he personally traveled to Chatanooga, experiencing all the danger and hardship the Union troops were suffering. This shared experience developed a bond between the new theater commander and the individual soldier. Grant would tour the Union line and outposts alone, talking to individual soldiers. His selection of Thomas

to command the Army of the Cumberland also inspired the troops because they had considerable respect and confidence in him. Second, opening the 'cracker line' restored the army's capability to sustain their operations. Finally, the genuine concern both generals demonstrated for soldier morale and welfare coupled with the soldiers confidence in their leaders' abilities, renewed their combat spirit.

The Confederate soldiers did not share this cohesion. Many of their popular senior commander had been replaced and their army reorganized. They lost their sense of common identity and shared purpose with the unpopular Bragg. The leadership which had been developed over time was now diminished. Many subordinate commanders were questioning the soundness of Bragg's military doctrine and battlefield tactics.

#### SECURITY, OFFENSIVE, SURPRISE, AND MANEUVER

Union tactics emphasized sound defensive field positions which denied the Confederates the opportunity for a surprise attack. At the same time, the offensive actions to capture Brown's Ferry and Lookout Valley put the Union army in a proactive mode of operation while forcing the Confederates into a reactive mode. The Union attacks of 27 October were timed to take advantage of the protective masking affects of night and mist, the surprise of an amphibious assault at an unexpected location, and exploiting a weak position in the Confederate siege line. Denied sufficient forces, the subsequent Confederate night counterattack failed to recover the situation. The Union had succeeded in rapidly maneuvering Hooker's forces, massing at Brown's Ferry, and avoiding an engagement against superior

Confederate force. Bragg's reliance on the defensive strength of deploying his army along high ridges (Lookout Mountain and Missionary Ridge) denied to him the principles of surprise and maneuver tactics.

### PHASE 3

The Union commander used the 'objective', 'offensive', 'security', and 'surprise' principles of war to his advantage. Other principles were also put to advantage, although not always through preplanned effort. On the other hand, Grant violated the principle of 'timing and tempo' purposely. This violation worked to the Union army's advantage, partly because violating it actually contributed to the success of higher priority principles. This, however, was not the case for the Confederates.

The Confederate commander violated the principles of 'objective', 'economy of force', and 'security'. In contrast to Union violations, which contributed to their battlefield success, Bragg's violations contributed to his Confederate army's defeat. Furthermore, the Union commander effectively employed the 'offensive' principle. The result was Union proactive operations through a series of attacks. These attacks forced the Confederates into a reactive mode of operation.

### OBJECTIVE

Grant's primary objective was to engage the Confederate army and destroy it. He never lost sight of this, even though considerable pressure was put on him from Washington to go to Burnside's assistance at Knoxville. Both situations were resolved through one action, attacking Bragg's defenses in front of

Missionary Ridge on the 23d. This action held Bragg in place long enough for Sherman to move into position on the Confederate's northern flank for an attack.

Bragg neither attacked nor made more than a token counterattack effort during this phase. His tactics became reactive in response to the series of Union attacks during these last three days of the battle. The Confederate's lack of 'offensive' actions permitted the Union army to determine the time, place, and deployment/employment of forces.

#### SECURITY

The Union used deception twice. First, Sherman's forces were moved from the southwest side of Chattanooga to the northeast side without alerting the Confederates. As Sherman's forces traveled northeast behind hills, Howard's division emerged from those hills and entered Chattanooga. Bragg became aware of Sherman's presence only after Union forces established a pontoon bridge across the Tennessee River north of the city. The second deception was unintended but highly successful. Thomas massed his forces in direct view of Confederate forces, who thought they were watching a review and drill ceremony, on 23 November.

The Confederate positions were established on terrain normally considered excellent for defensive purposes. The two rows of rifle pits, in front of and half way up Missionary Ridge, appeared to provide a 'defense in depth'. However, two factors worked to weaken these positions. First, spreading his troops out along these three lines dissipated his strength. Second, the center was further weakened when Bragg drew off increasing numbers of soldiers to strengthen his northern flank against

Sherman's attacks. Bragg had correctly determined where the major Union effort was to be made and was effectively reacting to it.

#### OFFENSIVE

Grant completely dominated the conduct of the battle by acting offensively. He initiated each attack, forcing Bragg into a reactive mode of operation.

#### COHESION

Thomas' leadership of the Army of the Cumberland instilled a sense of common identity and shared purpose among his soldiers. This strong warfighting spirit was graphically demonstrated by the success of his attacks of the 23d and 25th. In both cases, and especially the second, his soldiers pressed home their advances against entrenched Confederate forces. The charge up Missionary Ridge, which went beyond the initial order, demonstrated the common soldier's spirit and the confidence their leaders held for them.

Confederate leadership failed to build a sense of common identity and spirit among soldiers. This was primarily due to the many senior commanders being replaced in the November reorganization. Those units not affected by the strife among their senior commanders fought well, especially Cleburne's division at the north end of the line facing Sherman's intense attacks. Most other units experiencing command changes and unit replacements didn't seem to have sufficient time to develop the shared training and combat experiences that develop a strong warfighting spirit. This might have been part of the explanation for the collapse and disorganized route of Bragg's soldiers

holding the center during Thomas' attack of the 25th.

#### SURPRISE

Only the Union forces achieved surprise during the battle. Thomas did so, unintentionally, with the attack on the 23d. Sherman also achieved it in his initial river crossing on the 23d.

#### LOGISTICS

Union supply problems had been solved by this phase. Additionally, pontoon bridges across the Tennessee River provided the necessary transportation routes for Sherman's attacking forces.

#### ECONOMY OF FORCE

The Confederates experienced critically serious problems in this area. Bragg had dispatched 25 % of his forces towards Knoxville against a secondary target at the very time Union forces had dramatically increased and were preparing aggressive offensive actions. One Confederate division sent to Knoxville was successfully called back in time to support the north end of the defense line on Missionary Ridge. Shifting forces to the north end also succeeded in halting the Union attack in that area. Unfortunately for the Confederate defenders, the shifts unbalanced Bragg's center with disastrous results during the afternoon of the 25th.

#### TIMING AND TEMPO

Grant violated his original plan of a coordinated series of attacks all along the Confederate line. Sherman's slow build up at the north end of Missionary Ridge, coupled with his misreading the terrain, allowed Bragg to successfully react to the attack by

shifting forces toward that area. Grant sent Thomas' first attack in early in order to maintain the Union's objective of holding Bragg in place long enough to launch a full scale attack against him. Consequently, violating this principle of war proved to be the correct action under the circumstances. Surprise, security, and mass were used to compensate for this principle. Seizing the initiative and never relinquishing it was the final key to victory for the Union army.

### SECTION 3

#### DISCUSSION QUESTIONS

##### 1. Lead-Off Question

What were the national objectives of the Union and Confederate States?

##### Discussion

The Union's national objective was to keep the Southern states within the Constitutional Union.

The Confederate national objective was to maintain independence separate from the Union.

##### a. Follow-Up Question

How did national objectives affect the military strategy of the Union's Army of the Cumberland and the Confederate's Army of Tennessee?

##### Discussion

In order to return the Confederate States to the Union, military strategy required that the Union enter the Southern states and force the dissolution of their independent government. This necessitated the Union's offensive military strategy characterized by its proactive initiation of attacks on Confederate positions.

Southern military strategy was defensive in nature. The Confederacy was interested in maintaining its borders. Consequently, there was no need to enter Union territory unless temporary military tactics required it. As a result Bragg became reactive to Union initiatives.

##### b. Follow-Up Question

What was the significance of Chattanooga to the Union's



grand strategy?

#### Discussion

Chattanooga was an important transportation hub. It controlled road, railroad, and river traffic into the heart of the South. Union control of this city would cut off Southern industry from natural resources of lead, nitrate, and coal (6:215). Georgia iron mills would be cut off from their normal supply of ore (12:165). Additionally, the South would also lose their chief supply of corn and nine tenths of all their bacon (6:215). Consequently, control of Chattanooga would augment the Union's grand strategy of blockade, designed to deny the South the resources they needed to carry on the war.

#### 2. Lead-Off Question

What role did logistics play in the Union's military strategy during the two months battle for Chattanooga?

#### Discussion

Logistic supply and transportation were the number one priority problems facing the Union army during the first phase of the battle. During the second phase, the ability to transport troops and artillery pieces became the most significant logistics problem. Moving Sherman's corps across the Tennessee River and Hooker's units across Chattanooga Creek became the most serious transportation problems during the final phase of the battle.

#### a. Follow-On Question

What impact did logistics have in shaping Confederate military strategy and tactics?

#### Discussion

Shortage of supplies and poor roads prevented Bragg from

conducting offensive operations against the flanks of the besieged Union army at Chattanooga. Additionally, lack of boats and bridge materials prevented the Confederates from crossing the Tennessee River above or below Chattanooga. Finally, inadequate interior railroad lines make the movement of supplies from the South to Bragg's field army very slow (15:375-376).

b. Follow-on Question

How was the Union army affected by there interior strategic lines of transportation?

Discussion

The Union army greatly benefited from their superior railroad network, which interconnected the eastern and western theaters of operation. As an example, General Hooker's 11 and 12th Corps were transported from the east coast to Tennessee, with all their equipment and material, in less than two weeks.

3. Lead-Off Question

What part did unity of command play in Confederate execution of military strategy?

Discussion

Unity of command was a major problem in Bragg's command for several reasons. First, it took up a great deal of General Bragg's time and energy. Next, it caused him to reorganize his entire command structure. Third, replacing so many popular commanders added to friction and decreased warfighting spirit among his troops (12:164). Finally, it was a major contributing factor in Bragg's decision to reduce his army's strength at a time when Grant was increasing his. About 25 % of Bragg's troops left with Longstreet two weeks before the final series of Union

attacks.

a. Follow-On Question

How did the Union handle similar unity of command problems?

Discussion

The Union ended their bickering quickly with positive action. Three commanders were relieved of duty and reassigned (11:292). Additionally, Grant took quick and decisive action by replacing General Roescrans, commander of the Army of the Cumberland, with General Thomas. Thomas was both highly capable and very popular with the troops; they had nicknamed Thomas "Rock of Chickamauga".

4. Lead-Off Question

What principles of war did General Grant violate during the final phase of the battle?

Discussion

Grant originally planned for a simple coordinated attack plan; Sherman would attack the Confederate northern flank at the upper end of Missionary Ridge, Thomas would attack the center near the middle of Missionary Ridge, and Hooker would attack the southern flank at Lookout Mountain-then on to the south end of Missionary Ridge. All three attacks would be launched at the same time against the numerically inferior Confederate forces' positions. Grant's use of the 'timing and tempo' principle would inhibit the supporting movement of Confederate forces by pinning them down in place while Sherman delivered a crushing blow from the north. However, threatening Confederate troop movements towards Union General Burnside at Knoxville forced Grant to launch his attacks

prematurely and in piecemeal fashion. Thomas attacked the Confederate center on the first day. Sherman and Hooker attacked on the second and third days. Thomas then attacked again late on the third day. The attacks were essentially uncoordinated, timing and tempo did not prevent Confederate General Bragg from shifting his forces to meet the heaviest attacks from Sherman in the north.

a. Follow-Up Question

Why did Grant sacrifice his original plan designed to achieve the principles of 'simplicity' and 'timing and tempo'?

Discussion

The 'objective' principle overrode those of 'simplicity' and 'timing and tempo'. Grant's primary object was the destruction of the Confederate army. This dictated an offensive plan to seize and hold the initiative; employ surprise, security, and mass; and prevent Bragg from moving his forces away to Knoxville. Therefore, immediate action, in the form of a reconnaissance in force by Thomas against the Confederate center, was required. This action confirmed Confederate strength and held Bragg long enough for Sherman to move his Union forces into place for the primary attacks.

b. What principles of war did Confederate General Bragg violate during the final phase of the battle?

Discussion

Bragg violated the principles of 'objective', 'economy of force', and 'security'. After the Union army broke the siege, Bragg never properly revised his tactics to coincide with his original objectives of defeating the Union army or driving it out of

Confederate territory. Instead, he shifted forces to Knoxville under the command of Longstreet, a subordinate commander with whom he did not get along. The move against Knoxville might have been motivated more to resolve long standing unity of command problems than a carefully thought out shift in objective. Sending two divisions towards Knoxville when the Union was building up its forces reflects a faulty execution of 'economy of force'. Bragg dissipated his strength on the secondary objective of Knoxville at this critical time. 'Security' was violated when Bragg put too much faith in the strength of his geographic position. Positioning his forces along Missionary Ridge in three defensive lines did not provide the 'defence in depth' effect he hoped to achieve. Instead, as the events of Thomas' attack on the final afternoon of battle proved, Bragg's three lines seemed to dissipate rather than concentrate his forces. Finally, Bragg shifted too many troops north to meet the Union attack there. This action depleted the forces along the center of his defensive line, permitting Wood and Sheridan's attacking divisions to penetrate the center of Missionary Ridge.

# BIBLIOGRAPHY

## A. REFERENCES CITED

### Books

1. Andrews, J. C. The North Reports the Civil War. U. of Pittsburgh Press, 1955.
2. Athearn, R. Soldier in the West: The Civil War Letters of Alfred Lacey Hougl. Philadelphia, Pennsylvania: U of Pennsylvania, 1957.
3. Catton, B. U. S. Grant and the American Military Tradition. Boston, Massachusetts: Little, Brown and Company, 1954.
4. Clausewitz, C. v On War. Princeton, New Jersey: Princeton University Press, 1976.
5. Commager, H. S. The Blue and the Gray: The Story of the Civil War as told by Participants. Indianapolis, New York: The Bobbs-Merrill Company, Inc., 1950.
6. Church, W. C. Ulysses S. Grant and the Period of National Preservation and Reconstruction. New York, New York: G. P. Putnam's Sons, 1897.
7. Donovan, T. H. The American Civil War. West Point, New York: U. S. Military Academy, 1981.
8. Grant, U. S., Long, F. B. Personel Memoirs of U. S. Grant. Cleveland and New York: The World Publishing Company, 1952.
9. Griffith, H. R. Great Warriors at Chattanooga: Braxton Bragg and George H. Thomas. Maxwell AFB, Alabama: ACSC, 1982.
10. Guilmartin, J. F. Jr Project Warrior: On War. Maxwell AFB, Alabama: ACSC, 1983.
11. Horn, S. F. The Army of Tennessee, A Military History. Indianapolis, Indiana: The Bobbs-Merrill Company, 1941.
12. Hughes, N. C. Jr General William J. Hardee, Old Reliable. Baton Rouge, Louisiana: Louisiana State University Press, 1965.
13. McCormick, R. R. The War Without Grant. New York, New York: The Bond Wheelwright Company, 1950.
14. Pratt, F. Civil War on Western Waters. New York, New York: Henry Holt & Company, 1956.
15. Seitz, D. C. Braxton Bragg, General of the Confederacy Columbia, South Carolina: The State Company, 1924.
16. Tucker, G. The Battles for Chattanooga. U. S. A. Eastern Acorn Press, 1971.

---

---

## CONTINUED

---

---

### Official Documents

17. U.S. Department of the Air Force: United States Air Force Basic Doctrine. AF Manual 1-1, draft.  
Washington, D.C.: Government Printing Office, 1984.

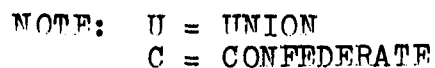
## APPENDIX



**INSTRUCTIONS:**

- [1] The length of the horizontal row of letters (U & C) indicates the magnitude of that principle's impact. The longer the row to the left of the vertical center line, the greater the disadvantage caused by that principle. The longer the row to the right, the greater the principle's advantage for that army.
- [2] The center vertical line (composed of 'X's) represents equilibrium for that principle of war.
- [3] The left vertical line (composed of '!!') represents a critical disadvantage point. If action isn't taken to bring this principle of war within control (reducing the row of letters) disaster is likely to befall that particular army.
- [4] The right vertical line represents the point beyond which that army has a very clear cut advantage in that principle of war. If all other principles are in relative equilibrium between the armies, this clear cut advantage could determine the outcome of the engagement.

[illegible]

[illegible]

0000 0000 0000 0000

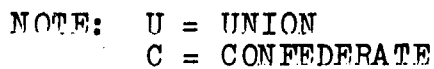
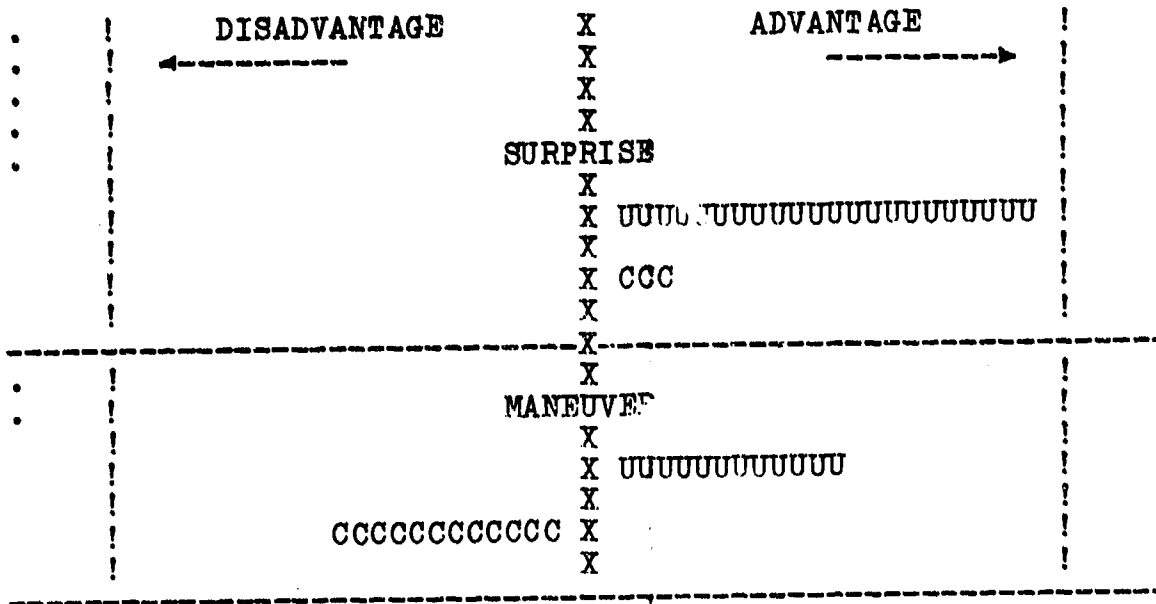


CHART 2  
((continued))



NOTE: U = UNION  
C = CONFEDERATE

0000 0000 0000 0000 0000 0000 0000 0000

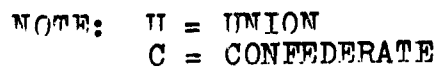


CHART 3  
((continued))

DISADVANTAGE		ADVANTAGE
	X	
	X	
	X	
	X	
	LOGISTICS	
	X	
	X UUUUUUUUUUU	
	X	
	X CCC	
	X	
	X	
	ECONOMY OF FORCE	
	X	
	X UUUUUUUUUUU	
	X	
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	X	
	X	
	X	
	TIMING AND TEMPO	
	X	
UUUUUUUUUUUUUU	X	
	X	
	X CCCCCCCCCCCC	
	X	
	X	

NOTE: U = UNION  
C = CONFEDERATE

Principles of War

Supporting characteristics

LOGISTICS:

1. Sustain men and machines:
  - a. Obtaining
  - b. Moving
  - c. Maintaining
2. Getting sufficient men and machines to the right:
  - a. Position
  - b. Time
3. Requires a logistics system which is:
  - a. Secure
  - b. Simple
  - c. Flexible
4. Limit imposition on the commander's:
  - a. Time
  - b. Energy
5. It can impose a heavy burden on C<sup>3</sup>.

UNITY OF COMMAND:

1. Must give to a single commander the appropriate:
  - a. Authority
  - b. Responsibility
2. Have effective exercise of:
  - a. Leadership
  - b. Power of decision
3. Coordinated action by:
  - a. Authority
  - b. Cooperation
4. It gives:
  - a. Versatility
  - b. Decisive striking power
  - c. Orchestrates overall efforts
5. It permits:
  - a. Decisive blows
  - b. Exploits weaknesses
6. It develops:
  - a. Strategies and plans
  - b. Determines priorities
  - c. Allocates resources
  - d. Controls forces

COHESION:

1. Establish and maintain:
  - a. Spirit
  - b. Capability
2. Holds combat units together.
3. Dependent on:
  - a. Leader inspired spirit
  - b. Sustained operational capability
  - c. Shared training/combat experiences
  - d. Sense of common identity and shared purpose

4. Produced over time by leadership.
5. Achieved by:
  - a. Communicating objectives clearly
  - b. Demonstrating genuine concern for morale and welfare
  - c. Employing sound military doctrine

#### SECURITY:

1. Protect from enemy activities.
2. Prevent surprise.
3. Preserve action.
4. Defensive measures:
  - a. Active
  - b. Passive
5. Deny the enemy information.
6. Protect from attack by masking:
  - a. Location
  - b. Strength
  - c. Intentions
7. Achieved by combining:
  - a. Secrecy
  - b. Disguise
  - c. Operational security
  - d. Deception
  - e. Dispersal
  - f. Maneuver
  - g. Timing
  - h. Posturing
  - i. Defense and hardening of forces

#### OFFENSIVE:

1. Seldom possible without action.
2. Act rather than react.
3. Select priorities of attack:
  - a. Time
  - b. Place
  - c. Weaponry
4. Employed rapidly and directly.
5. Penetrate to heart without first defeating defenses.
6. Seize offensive at outset.

#### SURPRISE:

1. Attack at unexpected:
  - a. Time
  - b. Place
  - c. Manner
2. Enemy unable to react effectively.
3. Achieved by:
  - a. Secrecy
  - b. Deception
  - c. Audacity
  - d. Originality
  - e. Timely execution
4. Can be a decisive shift in power.
5. Generates opportunities to exploit.



6. Makes enemy react rather than act.
7. Must have adequate CCCI.
8. Achieving surprise:
  - a. Exploit enemy weakness
  - b. Effective deception to divert enemy attention
  - c. Security to deny the enemy sufficient: warning & reaction

#### MANEUVER:

1. Complex interaction of moves and countermoves.
2. Move strengths selectively against enemy's weakness.
3. Avoid engaging superior strength forces.
4. Permits:
  - a. Rapid massing
  - b. Effective disengagement
5. Accomplish:
  - a. Maintain initiative
  - b. Dictate terms of engagement
  - c. Retain security
  - d. Execute surprise attacks at the right: place & time
6. Risk loss of:
  - a. Cohesion
  - b. Control

#### SIMPLICITY:

1. Purpose: to achieve unity of effort.
2. Guidance:
  - a. Quick
  - b. Clear
  - c. Concise
3. Promotes understanding.
4. Reduces confusion.
5. Permits ease of execution.
6. Adds to cohesion.

#### MASS:

1. Proper balance between Mass and Economy of Force.
2. Concentrated firepower can:
  - a. Disrupt plan of attack
  - b. Destroy cohesion
  - c. Psychological shock
  - d. Create opportunities

#### ECONOMY OF FORCE:

1. Appropriate mass a critical time and place.
2. Set and continually refine priorities.
3. Don't dissipate strength on secondary objectives.
4. Preserves strength to employ when & where needed most.

#### TIMING AND TEMPO:

1. Optimize timing and rate of forces to:
  - a. Inhibit
  - b. Deny enemy forces effectiveness
2. Dominate the action.

3. Remain unpredictable.
4. Create uncertainty.
5. Achieve by:
  - a. Seize initiative
  - b. Operate beyond enemy's ability to react
6. Requires a mix of:
  - a. Surprise
  - b. Security
  - c. Mass
  - d. Maneuver
  - e. Taking advantage of opportunities
7. Attacks be executed at:
  - a. Time
  - b. Frequency
  - c. Intensity

OBJECTIVE:

1. What intended to accomplish.
  2. Describe nature & scope of operation.
  3. Vary in size.
  4. Ultimately to neutralize/destroy:
    - a. Enemy's armed forces
    - b. Will to fight
  5. Political objective contribution.
- ACHIEVING OBJECTIVE:
6. Knowledge, strategy, leadership of commander.
  7. Properly use assigned forces.
  8. Objectives must be:
    - a. Disseminated
    - b. Fully understood
    - c. Clear & concise statements
  9. Know capabilities:
    - a. Friendly & enemy forces
    - b. Environment
    - c. Doctrine
  10. Select broad strategies of:
    - a. Targets
    - b. Means of attack
    - c. Tactics of employment
    - d. Phasing/timing of attacks